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**From:** MacNicholl, Peter@DTSC [Peter.MacNicholl@dtsc.ca.gov]  
**Sent:** 6/4/2020 8:28:00 PM  
**To:** Lae, Tom/SAC [Tom.Lae@jacobs.com]; Swanson, Charles [Swanson.Charles@epa.gov]; Fennessy, Christopher [christopher.fennessy@Rocket.com]  
**CC:** MacDonald, Alex@Waterboards [Alex.MacDonald@waterboards.ca.gov]  
**Subject:** Re: [EXTERNAL] RE: Area 40 update

Thank you and Alex and Chris for the summary and your feedback.

DTSC supports the proposed scope of work and hopes the additional over excavation goes quickly. Thank you.

-Pete

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**From:** Lae, Tom/SAC <Tom.Lae@jacobs.com>  
**Sent:** Wednesday, June 3, 2020 1:07 PM  
**To:** swanson.charles@epa.gov <swanson.charles@epa.gov>  
**Cc:** MacDonald, Alex@Waterboards <Alex.MacDonald@waterboards.ca.gov>; MacNicholl, Peter@DTSC <Peter.MacNicholl@dtsc.ca.gov>  
**Subject:** RE: [EXTERNAL] RE: Area 40 update

Chuck- This approach outlined/confirmed by Aerojet to the group sounds appropriate and is acceptable.

Tom Lae, PG | **Jacobs** | Geologist/Sr. Project Manager/Talent Supervisor | Federal & Environmental Solutions | 1.916.286.0246 direct | 1.916.296.0897 mobile  
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**From:** Fennessy, Christopher <christopher.fennessy@Rocket.com>  
**Sent:** Wednesday, June 3, 2020 12:07 PM  
**To:** MacDonald, Alex@Waterboards <Alex.MacDonald@waterboards.ca.gov>; MacNicholl, Peter@DTSC <Peter.MacNicholl@dtsc.ca.gov>; swanson.charles@epa.gov  
**Cc:** Lae, Tom/SAC <Tom.Lae@jacobs.com>; Rob Wilhelm (RWilhelm@Hargis.com) <RWilhelm@Hargis.com>  
**Subject:** RE: [EXTERNAL] RE: Area 40 update

Yes, the way you laid it out is accurate. However, if total dioxin/furan concentration is still greater than cleanup level in 2 foot bgs samples, we likely will collect 3 and 4 foot bgs samples prior to over-excavation. We only want to remobilize one more time. As a side note, we began hitting bedrock at certain locations before hitting 2 feet bgs, so there shouldn't be much more soil to excavate!

We want to have pre-excavation samples that are below the cleanup goal (whatever depth that ends up being). The excavation would continue to that depth, but the pre-excavation samples would be used as confirmation samples.

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**From:** MacDonald, Alex@Waterboards <[Alex.MacDonald@waterboards.ca.gov](mailto:Alex.MacDonald@waterboards.ca.gov)>  
**Sent:** Wednesday, June 3, 2020 11:05 AM  
**To:** Fennessy, Christopher <[christopher.fennessy@Rocket.com](mailto:christopher.fennessy@Rocket.com)>; MacNicholl, Peter@DTSC <[Peter.MacNicholl@dtsc.ca.gov](mailto:Peter.MacNicholl@dtsc.ca.gov)>; [swanson.charles@epa.gov](mailto:swanson.charles@epa.gov)  
**Cc:** Lae, Tom/SAC ([Tom.Lae@jacobs.com](mailto:Tom.Lae@jacobs.com)) <[Tom.Lae@jacobs.com](mailto:Tom.Lae@jacobs.com)>; Rob Wilhelm ([RWilhelm@Hargis.com](mailto:RWilhelm@Hargis.com)) <[RWilhelm@Hargis.com](mailto:RWilhelm@Hargis.com)>  
**Subject:** [EXTERNAL] RE: Area 40 update

Let me make sure I understand this.

1. Samples collected at one-foot and 2-foot depth. If 1-foot samples are below the cleanup level, then excavation will take place in the shaded area to a depth of one foot.
2. If samples collected at 1-foot exceed the cleanup value, the samples from 2-feet will be analyzed. If the 2-foot samples are less than the cleanup value, then excavation will be to a depth of two feet.
3. No more soil samples would be collected for confirmation. What if the 2-foot samples come back over the screening level? Do we repeat the above process with samples collected at 3 feet and potentially 4 feet? I would think that a concentration gradient would help in that case to see how the concentrations are attenuating with depth.

If this is the process, then I am comfortable with proceeding as proposed.

Alex

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**From:** Fennessy, Christopher <[christopher.fennessy@Rocket.com](mailto:christopher.fennessy@Rocket.com)>  
**Sent:** Wednesday, June 3, 2020 7:25 AM  
**To:** MacDonald, Alex@Waterboards <[Alex.MacDonald@waterboards.ca.gov](mailto:Alex.MacDonald@waterboards.ca.gov)>; MacNicholl, Peter@DTSC <[Peter.MacNicholl@dtsc.ca.gov](mailto:Peter.MacNicholl@dtsc.ca.gov)>; [swanson.charles@epa.gov](mailto:swanson.charles@epa.gov)  
**Cc:** Lae, Tom/SAC ([Tom.Lae@jacobs.com](mailto:Tom.Lae@jacobs.com)) <[Tom.Lae@jacobs.com](mailto:Tom.Lae@jacobs.com)>; Rob Wilhelm ([RWilhelm@Hargis.com](mailto:RWilhelm@Hargis.com)) <[RWilhelm@Hargis.com](mailto:RWilhelm@Hargis.com)>  
**Subject:** RE: Area 40 update

EXTERNAL:

Hi Everyone – We have received the results back for the Char-05 sub-grid samples. Attached is a mock-up of where the samples were collected. Locations -005, -015, -016, and -017 all exceeded the 6.8ng/Kg cleanup level (see attached). We are going to go out today and collect samples from each of these locations at depths of 1 foot and 2 feet bgs. The 1 foot bgs samples will be placed on rush TAT (5-day) and the 2 foot bgs samples will be placed on-hold pending results of 1 foot bgs samples. Samples will be analyzed for dioxin/furan. This will, hopefully, avoid multiple mobilizations. If the results indicate that we have achieved the cleanup level, we would like to be able to use the results of these pre-excavation samples as confirmation samples. Please confirm if this is acceptable.

Since the analysis of these samples will not be received until mid-next week, excavation activities will not occur until later next week or the week of June 15.

Ambient air Radiello sampling devices will be collected this Friday.

Chris

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**From:** Fennessy, Christopher  
**Sent:** Friday, May 22, 2020 4:33 PM  
**To:** MacDonald, Alex@Waterboards ([Alex.MacDonald@waterboards.ca.gov](mailto:Alex.MacDonald@waterboards.ca.gov)) <[Alex.MacDonald@waterboards.ca.gov](mailto:Alex.MacDonald@waterboards.ca.gov)>; MacNicholl, Peter@DTSC ([Peter.MacNicholl@dtsc.ca.gov](mailto:Peter.MacNicholl@dtsc.ca.gov)) ([Peter.MacNicholl@dtsc.ca.gov](mailto:Peter.MacNicholl@dtsc.ca.gov)) <[Peter.MacNicholl@dtsc.ca.gov](mailto:Peter.MacNicholl@dtsc.ca.gov)>; [swanson.charles@epa.gov](mailto:swanson.charles@epa.gov)  
**Cc:** Lae, Tom/SAC ([Tom.Lae@jacobs.com](mailto:Tom.Lae@jacobs.com)) <[Tom.Lae@jacobs.com](mailto:Tom.Lae@jacobs.com)>  
**Subject:** Area 40 update

Hi Everyone – We have completed the remaining perchlorate over-excavation and the initial dioxin excavation. The attached map shows the location of the dioxin excavation. We collected samples on 8,000 sqft grid spacing per the attached map. Results have been received. The laboratory calculates the Total Dioxin/Furan-TEQ for us and includes it in the toxicity section of the laboratory report (starts on page 24 of .pdf). Based upon the results, only one location, Char-S-005 exceeded the cleanup goal of 6.8ng/Kg. We will be going to the site on Tuesday to collect samples from the Char-S-005 1000sqft sub-grid in attempt to pinpoint where the over-excavation needs to occur. The sub-grid is also shown on the attached sample location map. Samples will be placed on 5-day turn around and we anticipate over-excavation activities to occur the week of June 8.

Ambient air monitoring devices were deployed today and will be in place for 14 days. These will be retrieved prior to conducting additional excavation activities.

The revised RDIP#2 should be submitted next week for your final review along with a work plan for additional characterization to finalize the design of the PRB. We would like to get into the field in mid-June to conduct the additional characterization, so please focus your efforts on reviewing the work plan first.

Let me know if you have questions. Have a great weekend! Chris

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